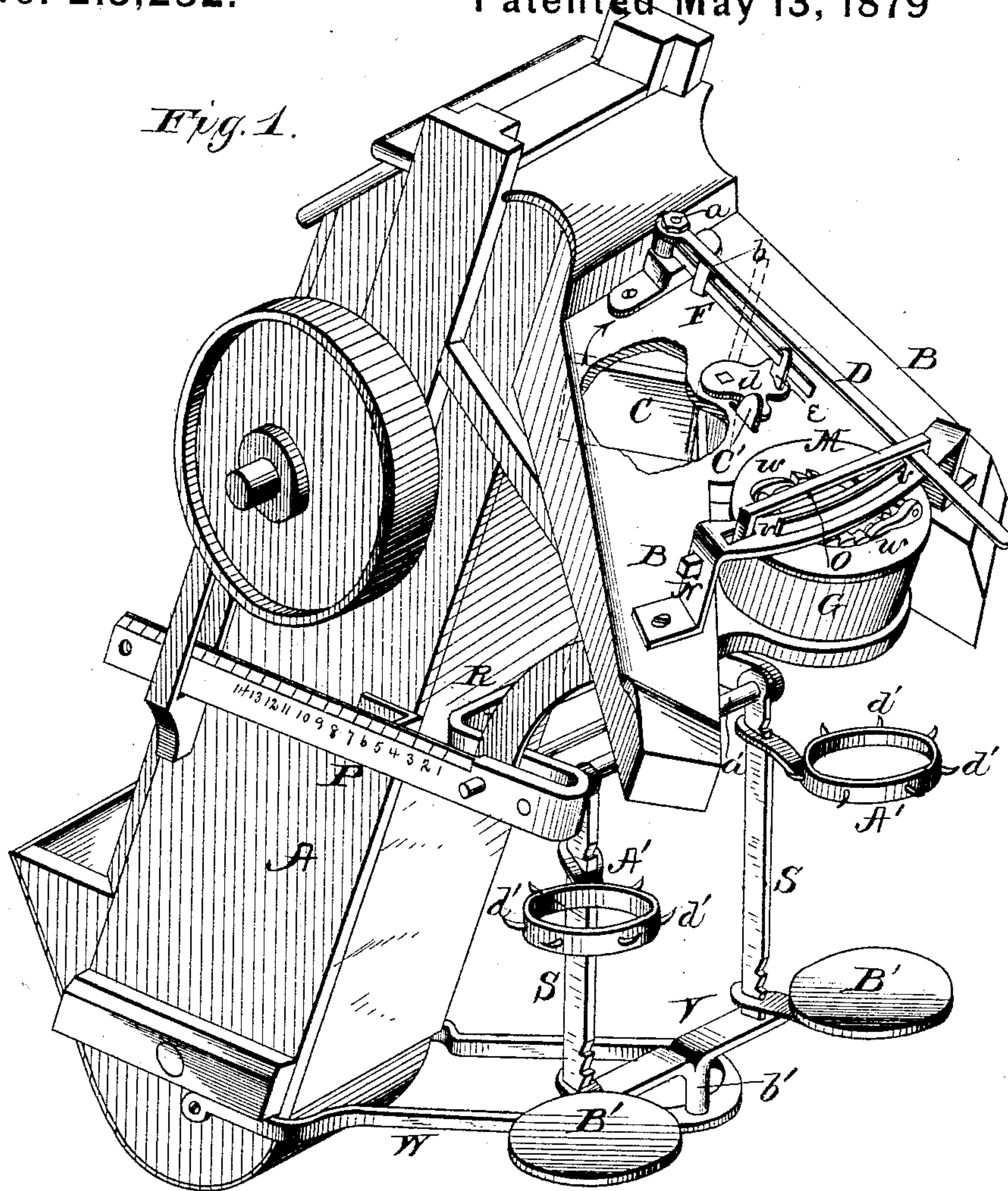


E. A. MARTIN.
Grain-Sacking Scale.

No. 215,232.

Patented May 13, 1879

Fig. 1.



WITNESSES
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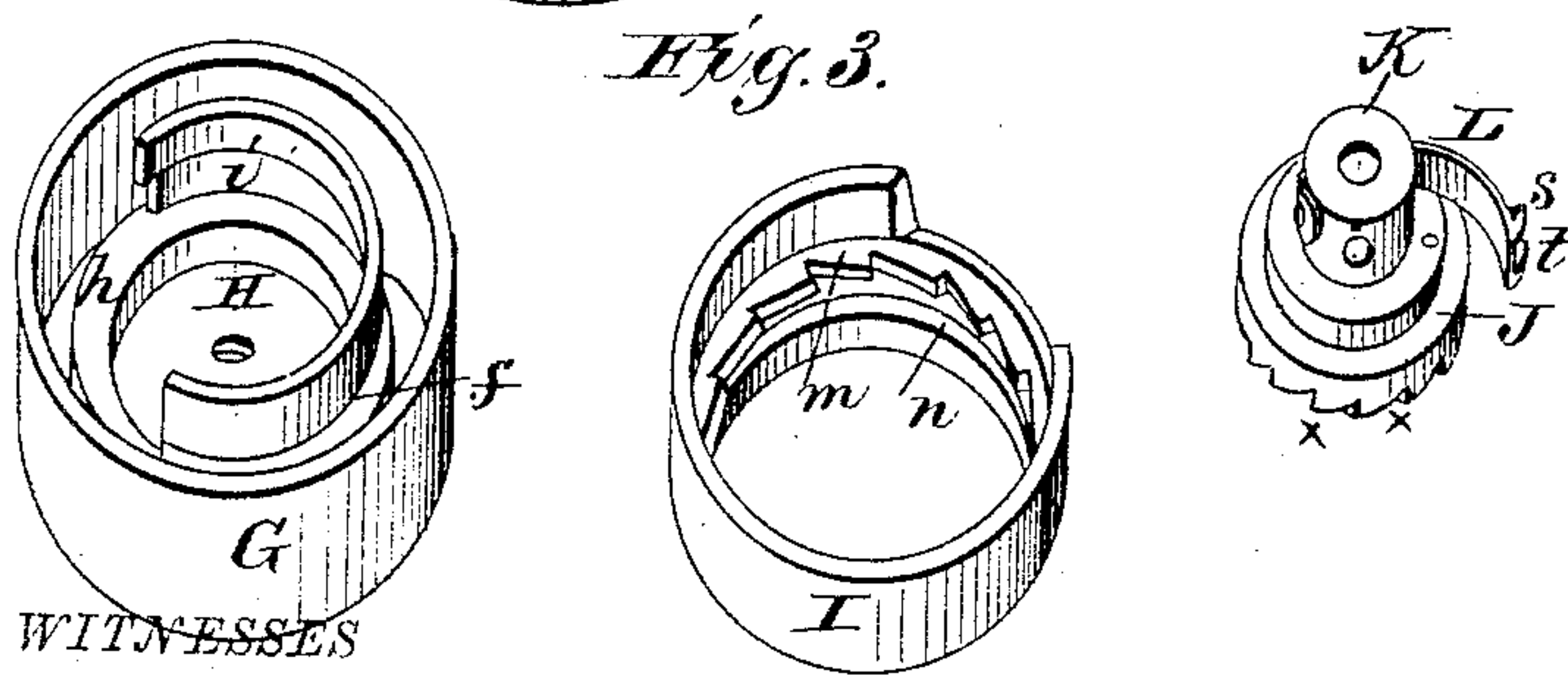
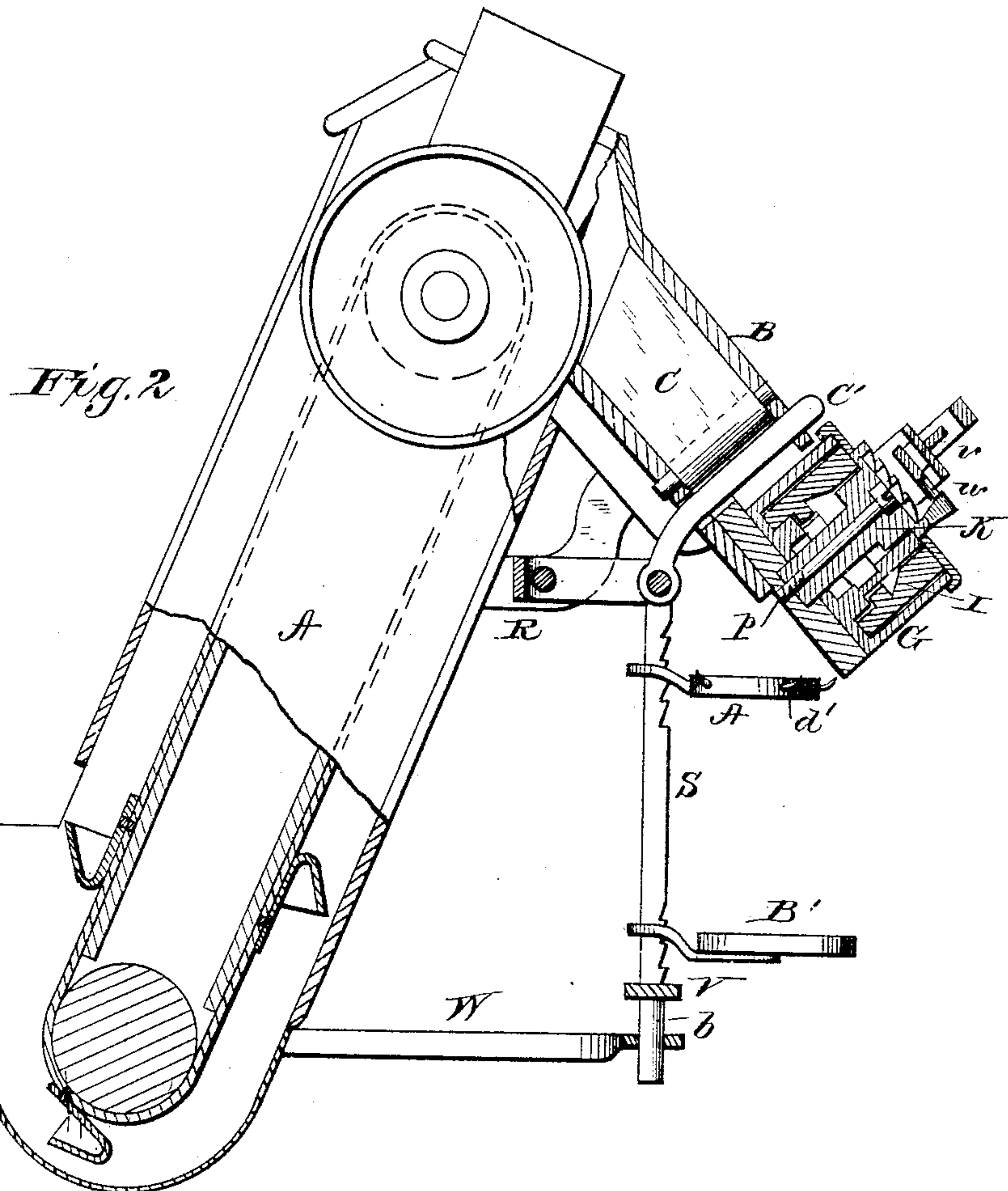
By

INVENTOR
E. A. Martin
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UNITED STATES PATENT OFFICE.

EDWIN A. MARTIN, OF THORNVILLE, OHIO.

IMPROVEMENT IN GRAIN-SACKING SCALES.

Specification forming part of Letters Patent No. **215,232**, dated May 13, 1879; application filed March 17, 1879.

To all whom it may concern:

Be it known that I, EDWIN A. MARTIN, of Thornville, in the county of Perry and in the State of Ohio, have invented certain new and useful Improvements in Grain-Sacking Scales; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a grain-sacking scale, designed particularly as an attachment for thrashing-machines, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 shows in detail the construction of the tally or register.

A represents an elevator of any suitable construction, provided at its upper end with two spouts, B B, branching off from each other, as shown. At the junction of the two spouts is a valve, C, to be thrown to either side, for the purpose of directing the grain into either spout as it is being discharged from the elevator.

On the front of the spouts, near the top of the elevator, is pivoted a lever, D, which extends downward, and is to be used for operating the register. To the stud *a*, on which said lever is pivoted, is also pivoted a spring, F, which passes through a slotted lug, *b*, on the under side of the lever, and the end of said spring is inserted in a staple, *e*, or slotted lug, fastened to an arm, *d*, which is secured on the journal of the valve C.

The tally or register is constructed in the following manner: A circular box, G, is fastened on a part of the frame between the two inclined spouts B B, and on the bottom of this box is formed a circular flange or ledge, H, having a circumferential shoulder, *f*, on the outer side. A part of this flange is cut out, as shown at *h*, and a groove, *i*, is formed around the inside thereof. In this cup is placed a

flanged ring, I, which is formed around the inside with a series of ratchet-teeth, *m*, and above said teeth is formed a circumferential groove, *n*.

The upper edge of the ring I fits between the sides of the cup and the flange H, and upon the upper face thereof is a series of radial lines, and numbers from 0 to 9.

On top of the flange H is placed a shouldered disk, J, to the under side of which is fastened a hub, K, and both being pivoted by a central pin or bolt, *p*. To the side of the hub K is attached a spring, L, the extreme end of which is formed with a hook, *s*, and a cam or projection, *t*.

On the top of the disk J is formed a series of ten ratchet-teeth, *x*, and the face of said disk is numbered to correspond therewith from 0 to 9.

On top the tally or register is placed a suitable cap, M.

Above the register is fastened a frame, N, to the front of the spouts, in which frame is a slide, O, formed with shoulders *v v*, and is also provided with two pawls, *w w*, on opposite sides, and working in opposite directions on the ratchet *x* of the disk J. This slide is worked by the movement of the lever D against the shoulders *v* of the frame, and one of the pawls *w* operates the register for each movement of the slide.

The disk J is turned the distance of one of its ratchet-teeth for each movement of the slide. When the end of the spring L, once during each revolution of the disk J, gets into the opening *h* in the flange H, and the hook *s* takes into one of the teeth *m* on the flanged ring I, and turns the said ring the distance of one tooth, the cam *t* on the end of the spring L, at the next revolution or movement of the disk J, comes in contact with the flange H, so as to press the spring inward and release the hook *s* from the ratchet *m*, so that the ring I will remain stationary until the completion of another revolution of the disk J, when the hook *s* will again spring outward and take hold of the ratchet *m*.

Below the spouts B B, in suitable brackets, is hung a scale-beam, P, which extends along the side of the elevator, and has its forward end bent, as shown, to form a frame, R, ex-

tending crosswise under the spouts. In the front part of the frame R is a rod, *a'*, on which are hung two bars, S S, having their lower ends inserted in a cross-bar, V. This cross-bar has a central downwardly-projecting pin, *b'*, which enters a bracket, W, secured or pivoted to the lower end of the elevator A. Each bar S has notches near the upper and lower ends, for adjusting and holding a ring, A', and shelf B', respectively, said ring and shelf having slotted arms, through which the bar passes. The shelf supports the sack, while the ring is provided with hooks *d'* for holding the mouth of the sack directly under the mouth of the spout. The grain flows into the bottom of the elevator, which carries it up and deposits it in the bifurcated spout.

The valve C causes the grain to flow through one spout into one sack, and another sack is hung under the other spout on its holder. The end of the spring-lever is then moved to its latch over the spout through which the grain is flowing. This operates the tally and bends the spring F ready to change the valve in the bifurcated spout. As soon as there is the required amount of grain in the sack to turn the scale-beam, the operation of the beam draws the latch that holds the valve. This latch *c'* is connected to the rod *a'*, and passes upward to engage with the arm *d*. The spring F then operates the valve and causes the grain to flow through the other branch of the spout into the other sack. The spring-lever D oper-

ates the registering device and bends the spring F to change the valve.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the elevator A and bifurcated spout B, of the valve C, with arm *d*, latch C', lever D, and spring F, substantially as and for the purposes herein set forth.

2. The combination of the lever D, slide O, with shoulders *v v*, the pawls *w w*, connected to said slide, and a registering device, substantially as and for the purposes herein set forth.

3. The combination of the case G, with flange H, with cut-out *h* and groove *i*, the flanged ring I, with ratchet-teeth *m*, and the disk J, with ratchet-teeth *x*, hub K, and spring L, with hook *s* and cam *t*, substantially as and for the purposes herein set forth.

4. The combination of the scale-beam P with frame R, rod *a'*, bars S S and V, pin *b'*, bracket W, toothed rings A', shelves B', and latch C', substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 28th day of February, 1879.

EDWIN A. MARTIN.

Witnesses:

G. R. TAYLOR,
R. T. WHITMER.